

Abstract Submitted
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Internal Conversion Coefficient Measurements of Transitions in ^{167}Lu G. GÜRDAL, Clark University; WNSL, Yale University, C.W. BEAUSANG, University of Richmond, D.S. BRENNER, Clark University, H. AI, R.F. CASTEN, A. HEINZ, E. WILLIAMS, WNSL, Yale University, B. CRIDER, R. RAABE, University of Richmond, D.J. HARTLEY, United States Naval Academy, M. CARPENTER, R.V.F. JANSSENS, T. LAURITSEN, C.J. LISTER, D. SEWERYNIAK, S. ZHU, Argonne National Laboratory, A.A. HECHT, Argonne National Laboratory; University of Maryland, J.X. SALADIN, University of Pittsburgh — Experimental internal conversion coefficients can be used to determine the multipolarities of electromagnetic transitions between nuclear energy levels and thus are valuable for assigning or confirming spins and parities of excited states. The normal and highly deformed bands of ^{167}Lu were populated by the $^{123}\text{Sb}(^{48}\text{Ca},4n)$ reaction. Five fold γ or γ - γ -e coincidence measurements were performed using Gammasphere and ICE Ball arrays at ANL. Internal conversion coefficients were determined for transitions in ^{167}Lu and multipolarities were deduced. The preliminary results of the analysis will be presented. This work was supported by the U.S.D.O.E grants DE-FG02-88ER40417, DE-FG02-91ER-40609, DE-FG-05NA25929, DE-FG02-05ER41379, by the NSF grant number PHY-0300673 and in part by the U.S. Department of Energy, Office of Nuclear Physics, under Contract No. W-31-109-ENG-38.

Gülhan Gürdal
Clark University; WNSL, Yale University

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